

International Symposium on Assessing the Economic Impact of Nanotechnology

March 27 – 28, 2012

Agenda

Sponsored by:

Organization for Economic Co-operation and Development (OECD) and
U.S. National Nanotechnology Initiative

Hosted by:

American Association for Advancement of Science

Tuesday, March 27, 2012

8:00 – 8:30 **Registration and Coffee**

8:30 – 9:00 **Welcoming Addresses**

Alan I. Leshner, American Association for the Advancement of Science, United States
Tom Kalil, White House Office of Science and Technology Policy, United States
Kenneth Guy, Science and Technology Policy Division, OECD

Session 1: Setting the Scene

Moderator: Robert Wells, Science and Technology Policy Division, OECD

9:00 – 9:20 **Presentation 1 (will insert title when finalized)**

Françoise Roure, Ministry of Economy, Finance and Industry, France

9:20 – 9:40 **Presentation 2 (will insert title when finalized)**

Gregory Tassey, National Institute of Standards and Technology, United States

9:40 – 10:00 **Challenges for Governments in Evaluating Return on Investment from Nanotechnology and its Broader Economic Impact – Overview of Background Paper 1**

Mark Morrison, Institute for Nanotechnology, United Kingdom

10:00 – 10:30 **Break**

10:30 – 12:30 **Government Panel Discussion**

Moderator: Françoise Roure, Ministry of Economy, Finance and Industry, France
Adalberto Fazzio, Ministry of Science, Technology and Innovation, Brazil
Herbert von Bose, DG Research and Innovation, European Commission
G. V. Ramaraju, Ministry of Communications and Information Technology, India
Kazunobu Tanaka, National Institute of Advanced Industrial Science and Technology, Japan
Joseph Molapisi, Department of Science & Technology, South Africa
Altaf Carim, White House Office of Science and Technology Policy, United States

12:30 – 1:30 **Lunch**

Session 2: Exploring the Qualitative Dimensions of the Economic Impact of Nanotechnology

Moderator: Steffi Friedrichs, Nanotechnology Industries Association, Belgium

1:20 – 1:50 **Finance and Investor Models in Nanotechnology – Overview of Background Paper 2**

Pekka Koponen, Spinverse, Finland

1:50 – 2:10 **Economic Contributions of Nanotechnology to Green and Sustainable Growth – Overview of Background Paper 3**

Philip Shapira, Georgia Institute of Technology, United States

2:10 – 2:30 **Discussion**

2:30 – 2:45 **Introduction to Parallel Breakout Sessions**

TBA

2:45 – 4:45

Parallel Breakout Sessions

- **Transportation & Aerospace**

Co-chair: Minoo Dastoor, National Aeronautics and Space Agency, United States

Co-chair: Steffi Friedrichs, Nanotechnology Industries Association, Belgium

Speaker: Travis Earles, Lockheed Martin, United States

Speaker: Francis Peters, Michelin Worldwide, France

- **Nanomedicine**

Co-chair: Piotr Grodzinski, National Cancer Institute, United States

Co-chair: Alexander Pogany, Federal Ministry for Transport, Innovation and Technology, Austria

Speaker: Lawrence Tamarkin, CytImmune, United States

Speaker: Joerg Vienken, Fresenius Medical Care, Germany

- **Electronics**

Co-chair: Luis Melo, Technical University of Lisbon, Portugal

Co-chair: Mike Roco, National Science Foundation, United States

Speaker: Michael Liehr, University at Albany – SUNY, United States

Speaker: TBA

- **Energy**

Co-chair: U.S. Department of Energy, TBA

Co-chair: Ingo Höllein, Federal Ministry of Education and Research, Germany

Speaker: Hilary Flynn, Lux Research, United States

Speaker: TBA

- **Advanced Materials**

Co-chair: Markku Lämsä, Finnish Funding Agency for Technology, Finland

Co-chair: World Nieh, United States Forest Service, United States

Speaker: Reinhold Crotogino, ArboraNano, Canada

Speaker: Peter Kruger, Bayer, Germany

- **Food & Food Packaging**

Co-chair: Hongda Chen, National Institute of Food and Agriculture, United States

Co-chair: WPN Delegate, TBA

Speaker: Victor Berucci Neto, Embrapa Instrumentacao Agropecuria, Brazil

Speaker: Kalpana Sastry, National Academy of Agricultural Research Management, India

4:45 – 6:00

Report Back and Synthesis Conversation

6:00

Reception

Wednesday, March 28, 2012

8:00 – 8:30 **Coffee**

8:30 – 9:00 **Nanotechnology Research Directions for Societal Needs in 2020**
Mike Roco, National Science Foundation, United States

Session 3: Nanotechnology, Economics, and Regulations

Moderator: Lynn Bergeson, Bergeson & Campbell, P.C., United States

9:00 – 9:20 **Business-to-Business & Standards**
Ajit Jillavenkatesa, National Institute of Standards and Technology, United States

9:20 – 9:40 **Socioeconomic Issues**
Douglas Robinson, teQnode, The Netherlands

9:40 – 10:00 **Regulatory Impacts & Uncertainty**
Diana Bowman, University of Michigan, United States

10:00 – 10:30 **Discussion**

10:30 – 11:00 **Break**

Session 4: Science of Science and Innovation Policies Applied to Nanotechnology

Moderator: Sujai Shivakumar, National Academy of Sciences, United States

11:00 – 11:20 **The Innovation Process and Economic Value**
Tateo Arimoto Japan Science and Technology Agency, Japan

11:20 – 11:40 **STAR METRICS Project in the U.S.**
Julia Lane, National Science Foundation, United States

11:40 – 12:00 **Brazilian LATTES System**
Esper Cavalheiro, Center for Strategic Studies and Management Science, Technology and Innovation, Brazil

12:00 – 12:30 **Discussion**

12:30 – 1:30 **Lunch**

Session 5: Approaches (New and Established) to Assess the Effects of Technology Investment

Moderator: TBA

1:30 – 1:55 **Presentation 1 (will insert title when finalized)**
Leonid Gokhberg, National Research University 'Higher School of Economics,' Russia

1:55 – 2:15 **Tools and Metrics Available to Assess the Economic Impact of Nanotechnology, and Models That Have Been Applied to Assess Economic Impact of Other Technologies – Overview of Background Paper 4**
Ben Walsh, Senior Consultant, Oakdene Hollins, United Kingdom

2:15 – 2:30 **Discussion and Introduction to Parallel Breakout Sessions**
TBA

Session 6: Exploring the Quantitative Dimension of the Economic Impact of Nanotechnology

2:30 – 4:30 **Parallel Breakout Sessions**

- **Transportation & Aerospace**
Co-chair: Minoo Dastoor, National Aeronautics and Space Agency, United States
Co-chair: Steffi Friedrichs, Nanotechnology Industries Association, Belgium
Speaker: Lance Criscuolo, Zyvex Technologies, United States
Speaker: TBA
- **Nanomedicine**
Co-chair: Piotr Grodzinski, National Cancer Institute, United States
Co-chair: Alexander Pogany, Federal Ministry for Transport, Innovation and Technology, Austria
Speaker: Richard Clinch, University of Baltimore, United States
Speaker: Bertrand Loubaton, GE Healthcare, France
- **Electronics**
Co-chair: Luis Melo, Technical University of Lisbon, Portugal
Co-chair: Mike Roco, National Science Foundation, United States
Speaker: Eunmi Jung, Institute for Industrial Economics & Trade, Korea
Speaker: TBA
- **Energy**
Co-chair: U.S. Department of Energy, TBA
Co-chair: Ingo Höllein, Federal Ministry of Education and Research, Germany
Speaker: Oleg Karasev, National Research University 'Higher School of Economics,' Russia
Speaker: TBA
- **Advanced Materials**
Co-chair: Markku Lämsä, Finnish Funding Agency for Technology, Finland
Co-chair: World Nieh, United States Forest Service, United States
Speaker: Kristen Loughery, Environmental Protection Agency, United States
Speaker: Seth Snyder, Council for Chemical Research, United States
- **Food & Food Packaging**
Co-chair: Hongda Chen, National Institute of Food and Agriculture, United States
Co-chair: WPN Delegate, TBA
Speaker: Lynn Bergeson, Bergeson & Campbell, P.C., United States
Speaker: Rosalie Ruegg, TIA Consulting, United States

4:30 – 5:30 **Report Back and Synthesis Conversation**

5:30 – 6:00 **Symposium Conclusion**